

From: [Fleer, James](#)
To: [Tzhone, Stephen](#)
Cc: [Bartenfelder, David](#); [Huling, Scott](#); [Telisak, Theodore](#); [Snyder, Jay](#); [Moix, Mark](#); [Sanchez, Carlos](#)
Subject: FW: Arkwood question from EPA HQ
Date: Thursday, October 01, 2015 4:20:04 PM
Attachments: [-pdf](#)

Stephen,

Attached is excerpted information from the Remedial Investigation Report that address the lineament study performed by ERM in 1990 for your review and use. As Tom reports below, he is not available either next Wednesday or Thursday. Hopefully, the attached study document will provide adequate detail of the fracture analysis.

If you have any questions, please let me now.

Best Regards,

Jim

James Fleer

Director, Environmental Services
McKesson Corporation
913.238.8348

From: Tom Aley [<mailto:taley@ozarkundergroundlab.com>]
Sent: Thursday, October 01, 2015 3:19 PM
To: Fleer, James
Subject: RE: Arkwood question from EPA HQ

Hi Jim:

I will not be available either next Wed. or Thurs. I will be at a karst conference in Minnesota.

Attached are pages from the Arkwood RI of 1990. They show that lineament analysis has existed for the site for 25 years. I was of course aware of all this when I designed and conducted the first dye trace there.

Actually, the issue of lineaments is irrelevant to the recent tracer test. We knew where the water went from the treatment work although we did sample a few other places in case there were minor discharges to those locations.

Tom Aley

From: Fleer, James [<mailto:James.Fleer@McKesson.com>]
Sent: Thursday, October 01, 2015 12:28 PM
To: Tom Aley
Subject: FW: Arkwood question from EPA HQ



9636008

Good afternoon Tom,

Please see and respond to EPA's question in the email below. Stephen also asked if you and I are available for a conference call either next Wednesday or Thursday. If so, please let me know what time(s) you are available on either or both days. If you have any questions or would like to discuss, please let me know.

Thanks in advance.

Best Regards,

Jim

James Fleer

Director, Environmental Services

McKesson Corporation

913.238.8348

From: Tzhone, Stephen [<mailto:tzhone.stephen@epa.gov>]

Sent: Thursday, October 01, 2015 12:25 PM

To: Fleer, James

Cc: Bartenfelder, David; Huling, Scott; Telisak, Theodore; Snyder, Jay; Moix, Mark; Sanchez, Carlos

Subject: Arkwood question from EPA HQ

Hi Jim,

Here is the question from EPA HQ: Was a lineament and/or fracture trace study conducted to try to determine any preferential pathways in the epikarstic environment (i.e., laterally and vertically)?

The lineament and/or fracture trace study referenced in the above question is not the 1991 or 2014 field dye tracer studies. They would be paper exercises on existing geologic maps concerning fracturing and folding features of the area.

Thanks,

Stephen L. Tzhone

Superfund Remedial Project Manager

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